

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicant:	GILL	Examiner:	Unassigned
Serial No.:	Unassigned	Group Art Unit:	Unassigned
Filed:	September 30, 2003	Docket No.:	HSJ920030082US1 (HITG.032PA)
Title:	METHOD AND APPARATUS FOR PROVIDING A BALLISTIC MAGNETORESISTIVE SENSOR IN A CURRENT PERPENDICULAR- IN-PLANE MODE		

CERTIFICATE UNDER 37 CFR 1.10

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Date of Deposit: September 30, 2003

I hereby certify that this paper or fee is being deposited with the United States Postal Service 'Express Mail
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Alexandria, VA 22313-1450.

By:

Kathleen McDevitt

Name: Kathleen McDevitt

INFORMATION DISCLOSURE STATEMENT (37 C.F.R. §1.97(b))

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Dear Sir:

With regard to the above-identified application, the items of information listed on the enclosed Form 1449 are brought to the attention of the Examiner.

This statement should be considered because it is submitted either within three months of the filing date or before the first Office Action of the above-identified application. Accordingly, no fee is due for consideration of the items listed on the enclosed Form 1449.

In accordance with 37 C.F.R. §1.98(a)(2), and the 05 August 2003 Official Gazette Notice, only a copy of each foreign document or non-U.S. patent/application listed on the enclosed Form 1449 is provided.

Please note that any notations or markings on the attached documents do not reflect particular relevance, or lack thereof, to the present application, nor were they necessarily made by anyone affiliated with the prosecution of the present application.

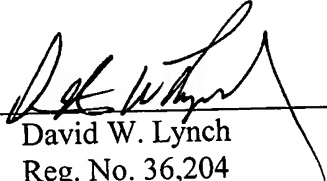
No representation is made that a reference is "prior art" within the meaning of 35 U.S.C. §§ 102 and 103 and Applicants reserve the right, pursuant to 37 C.F.R. § 1.131 or otherwise, to establish that the reference(s) are not "prior art." Moreover, Applicants do not represent that a reference has been thoroughly reviewed or that any relevance of any portion of a reference is intended.

Consideration of the items listed is respectfully requested. Pursuant to the provisions of M.P.E.P. 609, it is requested that the Examiner return a copy of the attached Form 1449, marked as being considered and initialed by the Examiner, to the undersigned with the next official communication.

Respectfully submitted,

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Date: September 30, 2003

By: 
David W. Lynch
Reg. No. 36,204

Date Mailed: September 30, 2003

FORM 1449* INFORMATION DISCLOSURE STATEMENT IN AN APPLICATION (Use several sheets if necessary)	Docket Number: HSJ920030082US1	Application Number: unassigned
	Applicant: GILL	
	Filing Date: 09/30/2003	Group Art Unit: unassigned

U.S. PATENT DOCUMENTS							
EXAMINER INITIAL	DOCUMENT NO.	DATE	NAME	CLASS	SUBCLASS	FILING DATE IF APPROPRIATE	
	5,206,590	04/27/1993	DIENY et al.				
	5,422,621	06/06/1995	GAMBINO et al.				
	5,432,373	06/11/1995	JOHNSON				
	5,695,864	12/09/1997	SLONCZEWSKI				
	5,835,003	11/10/1998	NICKEL et al.				
	5,936,402	08/10/1999	SCHEP et al.				
	6,232,777	05/15/2001	SATO et al.				
FOREIGN PATENT DOCUMENTS							
	DOCUMENT NO.	DATE	COUNTRY	CLASS	SUBCLASS	TRANSLATION	
						YES	NO
	JP 08-088422	02.04.1996	JP			Abstract only	
	JP 2001189504	10.07.2001	JP			Abstract only	
	WO 95/26547	05.10.1995	PCT			N/A	
	WO 02095434	28.11.2002	PCT			YES	
OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, Etc.)							
	2001	Zhao, Y.-W., Munoz, M. Tatar, G. and Garcia, N., "From Ballistic to Non-Ballistic Magnetoresistance in Nanocontacts: Theory and Experiments," <i>Journal of Magnetism and Magnetic Materials</i> , 223 (2001) 169-174.					
	2002	N. Garcia, M. Munoz, V.V. Osipov, E.V. Ponizovskaya, G.G. Qian, I.G. Saveliev, and Y. -W. Zhao, "Ballistic Magnetoresistance in Different Nanocontact Configurations: A Basis for Future Magnetoresistance Sensors," <i>Journal of Magnetism and Magnetic Materials</i> , 240 (2002) 92-99.					
	2002	Hartmann, Uwe, "Magnetic Multilayers and Giant Magnetoresistance," <i>Springer Series in Surface Sciences</i> , pp. 163-168.					
	2002	Harsh Deep Chopra and Susan Z. Hua "Ballistic Magnetoresistance over 3000% in Ni Nanocontacts at Room Temperature," <i>Physical Review B</i> , 66, 020403(R) (2002).					
	October 2001	M. Munoz, G.G. Qian, N. Karar, H. Cheng, I.G. Saveliev, N. Garcia, T.P. Moffat, P.J. Chen, L. Gan, and W.F. Egelhoff, Jr. "Ballistic Magnetoresistance in a Nanocontact Between a Ni Cluster and a Magnetic Thin Film," <i>Applied Physics Letter</i> , Vol. 79, Number 18, October 29, 2001.					
	December 1997	A. Encinas, F. Nguyen Van Dau, M. Sussiau, A. Schuhl, and P. Galtier, "Contribution of Current Perpendicular to the Plane to the Giant Magnetoresistance of Laterally Modulated Spin Values," <i>Applied Physics Letters</i> , Vol 71, No. 22, December 1, 1997.					

EXAMINER	DATE CONSIDERED
EXAMINER: Initial if reference considered, whether or not citation is in conformance with MPEP 609; draw line through citation if not in conformance and not considered. Include copy of this form for next communication to the Applicant.	